

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
7 July 2005 (07.07.2005)

PCT

(10) International Publication Number  
WO 2005/061904 A1

(51) International Patent Classification<sup>7</sup>: F15B 1/04, (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number: PCT/US2004/030968

(22) International Filing Date: 22 September 2004 (22.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 60/504,188 22 September 2003 (22.09.2003) US

(71) Applicant (for all designated States except US): DANA CORPORATION [US/US]; 4500 Dorr Street, Toledo, Ohio 43615 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): ROSE, Kenric, B. [US/US]; 8516 N. Latson Road, Howell, Michigan 48855 (US).

(74) Agents: STAVISH, Matthew et al.; Liniak, Berenato & White, 6550 Rock Spring Drive, Suite 240, Bethesda, Maryland 20817 (US).

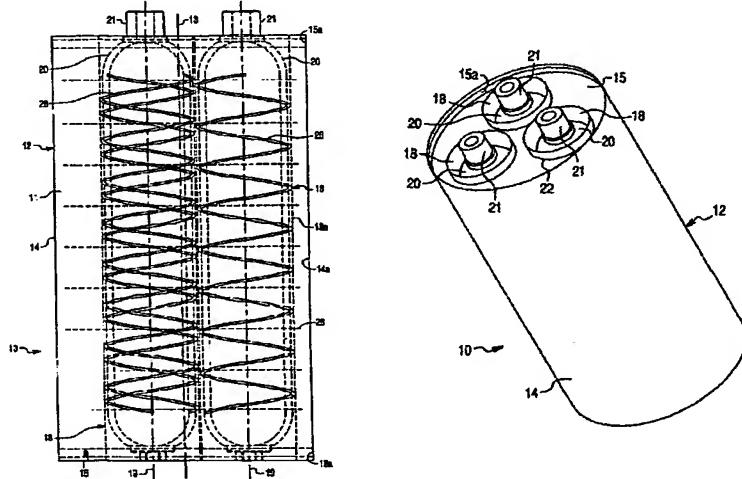
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: PRESSURE VESSEL ASSEMBLY FOR INTEGRATED PRESSURIZED FLUID SYSTEM



WO 2005/061904 A1

(57) Abstract: A pressure vessel assembly for a pressurized fluid system, comprises an enclosed outer casing, at least one internal tube extending within the casing, at least one fluid accumulator disposed within the at least one internal tube, and at least one cooling passage provided within the at least one internal tube and defined by a clearance between the at least one hydraulic fluid accumulator and the at least one internal tube. The pressure vessel assembly further includes a fluid storage compartment formed between the outer casing and the at least one internal tube. The fluid storage compartment is at least partially filled with a working fluid. The pressurized fluid system also includes a cooling fan allowing forced airflow through the cooling passage for forced cooling of the at least one hydraulic fluid accumulator and the working fluid in the storage compartment of the pressure vessel assembly.



*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*